

ART. XVIII.—*Note on Two Fossil Plants from Dundas.*

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Mr. T. S. Hall has been kind enough to allow me to examine two specimens of *Tæniopteris* and *Baiera*, occurring in an ochreous, arkose sandstone at Dundas. Their state of preservation, unfortunately, is not so good as to enable them to be determined specifically, but there is sufficient evidence to show that they differ from anything already recorded from Victoria.

Tæniopteris, sp. ind.

Length of frond 91 mm.; stalk as preserved, 29 mm. long; the breadth in the widest part would be about 22 mm. Apex obtuse. Venation not seen except in the apical portion, close, simple, inclined to the midrib at about 45°. Midrib well developed.

This species falls within the section of *Tæniopterids* classed as *Oleandridium* in which the fronds are simple, elongate-lanceolate; the venation is more inclined to the midrib and simple than in the other main section, *Angiopteridium*. For comparison with Australian forms we must take into consideration (1) *Oleandridium lentriculiforme*, Eth. fil.,¹ (2) *Tæniopteris etheridgei*, Shirley,² and (3) *O. lenticulariforme*, Eth. fil. (Shirley).³ From (1) the Dundas specimen differs in having a longer and narrower frond and more acute venation. The apical portion does not show bifurcation of venation as in *O. lentriculiforme*, Shirley, which is probably closely allied to the same author's *T. etheridgei*. (Both Mr. Shirley's species differ, as figured, from the New South Wales species in that the venation of the latter is to all intents and purposes simple).

¹ Records Geol. Survey, N. S. Wales, 1894, iv., p. 49, t. 8.

² Add. Foss. Flor. Queensland, 1898, t. 9, f. 1.

³ *Op. cit.*, t. 7, f. 3.

The general form of the frond of *Oleandridium vittatum*, Brongniart, as figured by Feismantel¹ from the Indian Upper Gondwanas, agrees closely with that of the Dundas specimen, but the venation is less inclined and more widely spaced. Zeiller² has figured a leaf from Sang-Sen which he refers to *Taniopteris McClellandi*, Oldham and Morris, which in closeness of venation approaches our specimen. In this connection it may be pointed out that Zeiller's figure shows an almost entire absence of bifurcation of venation, whereas in the original figures that condition is much more frequent.³

It is, in my opinion, very likely that when better preserved specimens are found this will prove to differ specifically from the N. S. Wales and Queensland forms, but till then nothing definite can be said.

Baiera, sp.

The specimen is less definite than the *Oleandridium*, and it is impossible to arrive at the dimensions of the perfect leaf. The distal portions, up to 55 mm. in length represent six of the leaf divisions. It does not appear to have been so dichotomous as either *B. ginkoides* or *B. ipsviciensis*, Shirley, which also appear to have been finer veined.⁴ It also is widely separated from Tenison Wood's *Jeanpaulia bidens*⁵ (*Ginkgo bidens*, Shirley). The Dundas specimen may be compared with Feismantel's *B. schenki*,⁶ from Indwe, Upper Karoo formation. In this form the leaf divisions are very much longer and narrower than those of our specimens appear to be. There can, I think, be little doubt that this species is distinct from any Australian form hitherto described, though it is impossible to draw up a satisfactory diagnosis from the limited material.

Both specimens were found associated with *Psilichthys selwyni*, T. S. Hall, at Carapook (Muntham), County of Dundas, Victoria.

¹ Pal. Ind., Foss. Flor. Gondwana Syst., ii., p. 5, t. 1, figs. 1-3; t. 2, figs. 1-5; t. 12, figs. 1, 1a.

² Ann. d. Mines, 1888, pp. 6-7, t. 10, f. 5. (separate copy).

³ Pal. Ind., Foss. Flor. Gondwana Syst., I., t. 23.

⁴ Shirley, *op. cit.*, t. 3, figs. 1, 2.

⁵ Proc. Linn. Soc. N. S. Wales, 1883, viii., t. 4, f. 3.

⁶ Abhandl. K. bohm. Gesell. Wissen., 1883, vii., t. 3, figs. 1, 2, 6.